

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A system to detect the position of a distal end of an introducer assembly in tissue containing a blood vessel, the system comprising:
  - (a) an introducer having a distal end and a proximal end ~~and a blood path between the distal end and the proximal end~~; and
  - (b) a pressure sensor, coupled to ~~the~~ and in fluid communication with a proximal end of the introducer assembly, to measure blood pressure and output a waveform indicative of blood pressure at ~~the~~ a distal end of the introducer assembly;
  - (c) a core pin with a channel at least partially forming a blood path between the distal end and the proximal end of the introducer assembly; and
  - (d) a side hole in fluid communication with the proximal end of the introducer assembly via the channel.
2. (Original) A system as set forth in claim 1, further comprising:  
a display to display said waveform.
3. (Cancelled)
4. (Previously presented) A system to detect the position of a distal end of an introducer assembly in tissue containing a blood vessel, comprising:
  - an introducer assembly having a distal end and a proximal end and a fluid path between the distal end and the proximal end; and
  - a pressure sensor, coupled to the proximal end of the introducer assembly, to measure blood pressure and output a waveform indicative of blood pressure at the distal end of the introducer assembly;
 wherein the introducer assembly comprises:
  - an introducer with a side hole at a distal end of the introducer; and

a core pin, insertable into the introducer, with a channel as said fluid path, the channel being in communication with the side hole of the introducer when the core pin is inserted into the introducer.

5. (Cancelled)

6. (Previously presented) A system as set forth in claim 1, further comprising at least one of a seal or anchor inside a lumen of the introducer and deployable therefrom.

7. (Currently amended) A system as set forth in claim 1, further comprising a hemostatic valve at the proximal end of the introducer assembly.

8. (New) A system as set forth in claim 4, further comprising:  
a display to display said waveform.

9. (New) A system as set forth in claim 4, further comprising at least one of a seal or anchor inside a lumen of the introducer assembly and deployable therefrom.

10. (New) A system as set forth in claim 4, further comprising a hemostatic valve at the proximal end of the introducer assembly.

11. (New) A system as set forth in claim 1, wherein the channel is created in a space between the core pin and the introducer.